

**GOVERNMENT OF INDIA
POWER
LOK SABHA**

STARRED QUESTION NO:176
ANSWERED ON:29.11.2001
HYDEL POWER GENERATION
DINESH CHANDRA YADAV;NAWAL KISHORE RAI

Will the Minister of POWER be pleased to state:

- (a) whether the annual income of State Governments can go up by Rs.1.6crore on generation of 1 KW electricity based on 60 per cent plant load factor in the hydel power sector;
- (b) if not, the estimate of the Union Government in this regard;
- (c) the estimated annual income of each State Government from the power generation in the hydel power sector; and
- (d) the potential of each State to increase its income in hydel power sector?

Answer

THE MINISTER OF POWER(SHRI SURESH P. PRABHU)

(a) to (d) : A Statement is laid on the Table of the House.

STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (d) OF STARRED QUESTION NO. 176 TO BE ANSWERED IN TI LOK SABHA ON 29.11.2001 REGARDING HYDEL POWER GENERATION.

(a) & (b) : The cost of power generation from hydroelectric projects is project-specific and depends upon the cost of the project, its date of completion, and its designed load factor. The average load factor of hydroelectric projects in operation in the country is about 38%.

The annual energy generation from one KW at 60% load factor would be 5256 units of electricity. The revenue from the sale of this energy is derived from the sale rate of energy, which varies from State to State. The actual income would depend upon generation, transmission and distribution costs as well as T&D losses.

(c) : The annual energy generation from hydroelectric projects during the year 2000-01 (utility-wise) is given in the Annex. I. An estimation of annual revenue in different States/SEBs considering the energy generation during 2000-01 from the hydroelectric projects owned by State utilities, average tariff for sale of electricity and T&D losses is given in Annex. II.

(d) : The State-wise details of hydroelectric potential presently under development/unexploited are given in Annex.III. Exploitation of this potential would further increase the income of the concerned States.

ANNEXURE-I

ANNEXURE REFEREED TO IN PART (c) OF THE STATEMENT L AND REPLY TO STARRED QUESTION NO. 176 TO B ANSERED IN THE LOK SABHA ON 29.11.2001 REGARDING HYDEL POWER GENERATION.

GENERATION FROM HYDRO POWER STATIONS IN THE COUNTRY DURING THE YEAR 2000-2001

Sector Generation [MU]

Central Sector

BBMB 10424
NHPC 8771
DVC 282
NEEPCO 899

Total : 20376

Private Sector

Tata Hydro [Mah] 1152
Shivpur [Kar.] 105
Shahapur [Kar.] 14
Narayanpur [Kar.]
Harangi [Kar.]
Manniyar [Ker.] 31
Kuthungal [Ker.]

Total PS : 1302

State Sector

J&K 559
HPSEB 1165
HSEB 244
RSEB 376
PSEB 3141
UPSEB 5301
GEB 439
MSEB 3661
MPSEB 1820
APSEB 7729
KPCL 10536
KEB 237
KSEB 6190
TNEB 5441
BSEB 144
OSEB 4612
WBSEB 446
SIKKIM 21
MEGHALAYA 658
TRIPURA 70
AR.PRADESH 13

Total SS : 52803

Total All India : 74481

ANNEXURE-II

ANNEXURE REFEREED TO IN PART (c) OF THE STATEMENT L AND REPLY TO STARRED QUESTION NO. 176 TO B
ANSERED IN THE LOK SABHA ON 29.11.2001 REGARDING HYDEL POWER GENERATION.

Estimate of Annual Revenue from Sale of Hydroelectric Energy Generation During the year 2000-2001 - State Sector Schemes

State/ Hydro Avrage tariff.@ T&D Losses@ Estimate of Annual Utility
Genera- (2000-2001) Revenue(Lac Rs.) (Paisa/Kwh.)
tion (%)
(MU)

J&K 559 194.16 46.5% 5806.65
HPSEB 1165 203.04 17.3% 19561.99
HSEB 244 214.91 25.0% 3932.85
RSEB 376 195.79 22.0% 5742.13
PSEB 3141 176.42 16.9% 46048.64
UPSEB 5301 183.35 25.0% 72895.38
GEB 439 225.00 19.4% 7961.27
MSEB 3661 231.18 16.7% 70500.95

MPSEB	1820	166.74	20.5%	24125.61
APSEB	7729	182.00	31.0%	97060.78
KPCL	10536	252.88	30.0%	186504.06
KEB	237	252.88	30.0%	4195.28
KSEB	6190	236.66	20.8%	116022.09
TNEB	5441	233.49	16.5%	106079.99
BSEB	144	200.14	22.0%	2247.97
OSEB	4612	157.87	6.0%	68441.07
WBSEB	446	240.72	28.0%	7730.00
SIKKIM	21	115.00	20.0%	193.20
MEGHALAYA	658	174.18	20.3%	9134.45
TRIPURA	70	97.00	28.0%	488.88
AR.PRADESH	13	200.00	18.0%	213.20
Total	52803			854886.44

Source: Annual Report of Planning Commission on the Working of State Electrciry Boaaards
& Electricity Departments dated June 2001

- Annual Plan

ANNEXURE-III

ANNEXURE REFEREED TO IN PART (d) OF THE STATEMENT L AND REPLY TO STARRED QUESTION NO. 176 TO B
ANSERED IN THE LOK SABHA ON 29.11.2001 REGARDING HYDEL POWER GENERATION.

STATUS OF HYDRO ELECTRIC POTENTIAL DEVELOPMENT

(STATE WISE) As on 01.11.2001

Potential assessed	Potential developed	% dev-	Potential yet to be developed	% Yet to deve- loped
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Region/State (MW)	at (MW)	60% LF (MW)	at 60% LF (MW)	at 60% LF (MW)
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NORTHERN

Jammu & Kashmir	7487.00	508.33	6.79	6978.67	93.21
Himachal Pradesh	11647.00	2036.73	17.49	9610.27	82.51
Punjab	922.00	656.33	71.19	265.67	28.81
Haryana	64.00	51.67	80.73	12.33	19.27
Rajasthan	291.00	192.67	66.21	98.33	33.79
Uttaranchal	7453.00	831.68	11.16	6621.32	88.84
Uttar Pradesh	2291.00	313.65	13.69	1977.35	86.31

Sub Total (NR)	30155.00	4591.07	15.22	25563.93	84.78
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WESTERN

Madhya Pradesh	2774.00	600.00	21.63	2174.00	78.37
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Gujarat	409.00	138.67	33.90	270.33	66.10
Maharashtra	2460.00	1118.83	45.48	1341.17	54.52
Goa	36.00	0.00	0.00	36.00	100.00

Sub total (WR)	5679.00	1857.50	32.71	3821.50	67.29
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SOUTHERN

Andhra Pradesh	2909.00	1402.25	48.20	1506.75	51.80
Karnataka	4347.00	2322.83	53.44	2024.17	46.56
Kerala	2301.00	1125.50	48.91	1175.50	51.09
Tamilnadu	1206.00	946.50	78.48	259.50	21.52

Sub Total (SR)	10763.00	5797.08	53.86	4965.92	46.14
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EASTERN

Jharkhand	478.00	75.17	15.73	402.83	84.27
Bihar	60.00	44.78	74.64	15.22	25.36
Orissa	1983.00	1100.50	55.50	882.50	44.50
West Bengal	1786.00	91.33	5.11	1694.67	94.89
Sikkim	1283.00	57.50	4.48	1225.50	95.52

Sub Total (ER)	5590.00	1369.28	24.50	4220.72	75.50
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NORTH EASTERN

Meghalaya	1070.00	121.67	11.37	948.33	88.63
Tripura	9.00	8.50	94.44	0.50	5.56
Manipur	1176.00	73.17	6.22	1102.83	93.78
Assam	351.00	111.67	31.81	239.33	68.19
Nagaland	1040.00	56.00	5.38	984.00	94.62
Arunachal Pd	26756.00	16.50	0.06	26739.50	99.94
Mizoram	1455.00	1.00	0.07	1454.00	99.93

Sub Total (NER)	31857.00	388.50	1.22	31468.50	98.78
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ALL INDIA	84044.00	14003.43	16.66	70040.57	83.34
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